



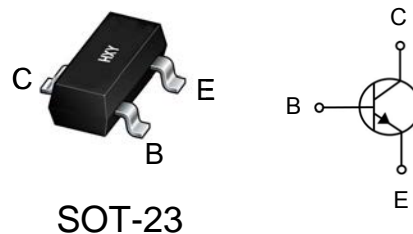
Features

- Collector Current: $I_C = 0.1A$
- Power Dissipation of 250mw

Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BC849-BC850	SOT-23	2x	3000

x:From B/C/F/G



Maxmim Ratings (Ta=25 unless otherwise noted)

Symbl	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	BC849 30	V
		BC850 50	
V_{CEO}	Collector-Emitter Voltage	BC849 30	V
		BC850 45	
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	0.1	A
T_j	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-55-150	°C

Classification Of h_{FE}

Rank	BC849B	BC849C	BC850B	BC850C
Marking	2B	2C	2F	2G



Electrcal Characteristics (Ta=25 unless otherwise specified)

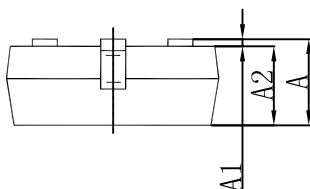
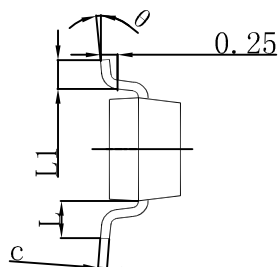
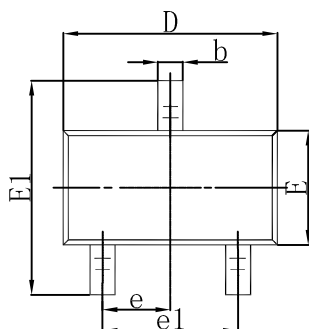
Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
collector cut-off current	ICBO	IE = 0; VCB = 30 V			15	nA
		IE = 0; VCB = 30 V; Tj = 150 °C			5	ì A
emitter cut-off current	IEBO	IC = 0; VEB = 5 V			100	nA
DC current gain BC849B; BC850B BC849C; BC850C	hFE	IC = 10 ì A; VCE = 5 V;		240		
				450		
DC current gain BC849B; BC850B BC849C; BC850C		IC = 2 mA; VCE = 5 V;	200	290	450	
			420	520	800	
collector-emitter saturation voltage	VCEsat	IC = 10 mA; IB = 0.5 mA		90	250	mV
		IC = 100 mA; IB = 5 mA		200	600	mV
base-emitter saturation voltage	VBEsat	IC = 10 mA; IB = 0.5 mA; *1		700		mV
		IC = 100 mA; IB = 5 mA; *1		900		mV
base-emitter voltage	VBE	IC = 2 mA; VCE = 5 V; *2	580	660	700	mV
		IC = 10 mA; VCE = 5 V;*2			770	mV
collector capacitance	Cc	IE = ie = 0; VCB = 10 V; f = 1 MHz		2.5		pF
emitter capacitance	Ce	IC = ic = 0; VEB = 500 mV; f = 1 MHz		11		pF
transition frequency	fT	IC = 10 mA; VCE = 5 V; f = 100 MHz	100			MHz
noise figure	F	IC = 200 ì A; VCE = 5 V; Rs = 2 kÙ, f = 10 Hz to 15.7 kHz			4	dB
		IC = 200 ì A; VCE = 5 V; Rs = 2 kÙ, f = 1 kHz; B = 200 Hz			4	dB

*1 VBEsat decreases by about 1.7 mV/K with increasing temperature.

*2 VBE decreases by about 2 mV/K with increasing temperature.

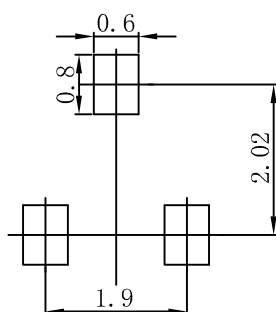


Package Dimensions SOT-23



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:
1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.



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